

In the Claims

Please amend claims 18-21 as follows.

1-17. (cancelled)

18. (Currently amended) A device for determining the presence of a nucleic acid in a sample comprising
an instrument for temperature cycling for analysis of real-time amplification of the nucleic acid,

a fluorimeter for detecting fluorescence during the amplification of the nucleic acid, the fluorescence obtained from a fluorescent entity capable of providing a signal related to the quantity of the nucleic acid, and

a processor for performing analysis routines, wherein the processor is programmed i[[.]] to initiate analysis algorithms using fluorescence values measured by the fluorimeter prior to completion of temperature cycling, ii[[.]] to use a first algorithm the algorithms to obtain a first score from a first test ~~each of a plurality of tests~~ using the fluorescence values and to obtain a second score from a second test using the fluorescence values measured by the fluorimeter to generate the scores, and iii[[.]] to use the first score and the second score to generate a composite score to determine whether the sample is positive, negative, or indeterminate for the presence of the nucleic acid ~~scores to ascertain whether the nucleic acid is present in the sample.~~

19. (Currently amended) The device of claim 18 wherein the first test is ~~plurality of tests~~ ~~comprise~~ a Confidence Interval Test and the second test is a Signal-to-Noise Ratio Test.

20. (Currently amended) The device of claim 19 wherein the first test is ~~plurality of tests~~ ~~further comprise~~ a Channel Consistency Test and the second test is an Efficiency Test.

21. (Currently amended) The device of claim 20 wherein the first test is ~~plurality of tests further comprise~~ a Function Ordering Test, the second test is a Maximum to Baseline Comparison Test, and the processor is further programmed to use a Last Rise Test.

22. (Original) The device of claim 18 wherein the instrument is configured for rapid thermal cycling.

23. (Original) The device of claim 22 wherein the instrument employs capillary tubes and hot air control.

24. (Withdrawn) The device of claim 18 provided in a portable container for field use.

Please add claim 25 as follows.

25. (New) A device for determining the presence of a nucleic acid in a sample comprising
an instrument for temperature cycling for analysis of real-time amplification of the nucleic acid,

a fluorimeter for detecting fluorescence during the amplification of the nucleic acid, the fluorescence obtained from a fluorescent entity capable of providing a signal related to the quantity of the nucleic acid, and

a processor for performing analysis routines, wherein the processor is programmed i) to initiate analysis algorithms prior to completion of temperature cycling, ii) to use the algorithms to obtain a score from each of a plurality of tests using fluorescence values measured by the fluorimeter to generate the scores, and iii) to use the scores to ascertain whether the nucleic acid is present in the sample;

wherein the plurality of tests comprises a Confidence Interval Test and a
Signal-to-Noise Ratio Test.